



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/501,273

10/06/2005

Peter James Milner

4058-129

5673

23448

7590

02/25/2008

INTELLECTUAL PROPERTY / TECHNOLOGY LAW

PO BOX 14329

RESEARCH TRIANGLE PARK, NC 27709

EXAMINER

MORROW, JASON S

ART UNIT

PAPER NUMBER

3612

MAIL DATE

DELIVERY MODE

02/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/501,273 | Applicant(s) MILNER ET AL. | |
| | Examiner Jason S. Morrow | Art Unit 3612 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/25/05</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Priority

1. It is noted that this application appears to claim subject matter disclosed in prior Application No. PCT/GB03/00073, filed 1/10/03. A reference to the prior application must be inserted as the first sentence(s) of the specification of this application or in an application data sheet (37 CFR 1.76), if applicant intends to rely on the filing date of the prior application under 35 U.S.C. 119(e), 120, 121, or 365(c). See 37 CFR 1.78(a). For benefit claims under 35 U.S.C. 120, 121, or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of all nonprovisional applications. If the application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference to the prior application must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable, within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an

Art Unit: 3612

unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required.

Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

2. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in the United Kingdom on 1/11/02. It is noted, however, that applicant has not filed a certified copy of the British application as required by 35 U.S.C. 119(b).

Specification

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

Arrangement of the Specification

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
- (e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
- (f) BACKGROUND OF THE INVENTION.
 - (1) Field of the Invention.
 - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (g) BRIEF SUMMARY OF THE INVENTION.
- (h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (i) DETAILED DESCRIPTION OF THE INVENTION.
- (j) CLAIM OR CLAIMS (commencing on a separate sheet).
- (k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

It is suggested applicant add section headings to the specification.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3612

4. Claims 1-5, 7, 11-15, 23, and 24 are rejected under 35 U.S.C. 102(b) as being anticipated by Sendlinger (German Patent Publication 616635C).

Re claim 1, Sendlinger discloses a glazing element (3) for an opening defined by opaque boundaries (5) characterized in that it has or incorporates means for diverting light passing through an edge region of the element whereby the field of view through the opening is enlarged.

Re claim 2, the means for diverting light passing through the edge region of the element is a refractor (2).

Re claim 3, the means for diverting light passing through an edge region of the element is integrally formed with the said element (see figure 3).

Re claim 4, the means for diverting light passing through an edge region of the element is formed separately from the said element and fixed, attached or otherwise held in physical juxtaposition with respect thereto (see figure 3).

Re claim 5, the glazing element is adapted to fit into the said opening and having a central region through which light can pass substantially undeviated and an edge region which refracts light through an angle as it passes therethrough, the angle being greater closer to the edge of the element (see figure 1).

Re claim 7, the means for diverting light is so formed that there is no substantial surface discontinuity between the region of the element over which no light diversion takes place and the region of the element at which light is diverted (see figure 3).

Re claim 11, the said means for diverting light passing through an edge region of the element comprises a negative cylindrical lens (2).

Re claim 12, the glazing element is formed as a motor vehicle windscreen (3).

Re claim 13, Sendlinger discloses an optical element adapted for fitting to or locating in association with a motor vehicle windscreen (3), to form a glazing element, for an opening defined by opaque boundaries (5), characterized in that it has or incorporates means for diverting light passing through an edge region of the element whereby the field of view through the opening is enlarged.

Re claim 14, Sendlinger discloses an optical element for extending the field of view through an edge region of an opening defined by opaque boundaries (5), comprising a refractor (2) adapted to fit against a glazing element of the opening in the said edge region thereof and to divert light passing therethrough towards the observer through an angle such as to bring its apparent direction towards a central region of the glazing element.

Re claim 15, characterized in that it is in the form of a negative cylindrical lens (2).

Re claim 23, Sendlinger discloses a motor vehicle windscreen having an optical element affixed or otherwise held or secured in position thereon, the optical element extending the field of view through the windscreen and comprising a refractor (2) adapted to fit against the windscreen in an edge region thereof and to divert light passing therethrough towards the observer through an angle such as to bring its apparent direction towards a central region of the windscreen.

Re claim 24, the optical element is a generally cylindrical negative lens oriented such that its direction of greatest (negative) magnification is generally horizontal (see figure 1).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sendlinger (German Patent Publication 616635C) in view of Sauer (US Patent 6,866,918).

Sendlinger discloses all the limitations of the claims, as applied above, except for the glazing comprising at least two layer of optically transparent material joined face to face over substantially the whole area thereof, an edge region of each of the to layers being formed such that the two layer diverge from one another towards the periphery of the element whereby to form a negative cylindrical lens over the edge region, and a wedge shape insert that is located between the two layer an edge region thereof.

Sauer teaches constructing a glazing comprising at least two layers (3 and 6) of optically transparent material joined face to face over substantially the whole area thereof, an edge region of each of the layers being formed such that the two layer diverge from one another towards the periphery of the element, and a wedge shape insert (5) that is located between the two layer an edge region thereof.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a glazing, such as that disclosed by Sendlinger, to have a glazing comprising at least two layer of optically transparent material joined face to face over substantially the whole area thereof, an edge region of each of the layers being formed such that

Art Unit: 3612

the two layer diverge from one another towards the periphery of the element, and a wedge shape insert that is located between the two layer an edge region thereof, as taught by Sauer, in order to construct the windshield as a single unit which can be easily installed on a vehicle.

7. Claims 9 and 16-22 rejected under 35 U.S.C. 103(a) as being unpatentable over Sendlinger (German Patent Publication 616635C) in view of Milner (US Patent 5,617,245).

Sendlinger discloses all the limitations of the claims, as applied above, except for the use of a Fresnel refractor.

Milner teaches the use of a Fresnel refractor in place of a conventional optical refractor (see column 6, lines 20-41 and column 8, lines 1-9).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a refractor, such as that disclosed by Sendlinger, to be constructed as a Fresnel refractor, as taught by Milner, in order to construct the refractor in a manner that allows easier manufacture.

Sendlinger and Milner disclose all the limitations of the claims, as applied above, except for the lens having a plane face and a faceted face and the angle of inclination of the facets with respect to the plane face varying with the square of the distance from one edge of the element, the angle of inclination of the facets varying according to the relation $\alpha = kx^2$, where k is a constant and x is the distance from the narrow end of the element, the constant k being .003, the riser draft angle varies by .1 degree per mm across the width of the element, or the riser draft angle is in the region of 10 degrees at the narrow end of the element.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify a Fresnel refractor, such as that disclosed above, to have a plane face and a faceted face and the angle of inclination of the facets with respect to the plane face varying with the square of the distance from one edge of the element, the angle of inclination of the facets varying according to the relation $\alpha = kx^2$, where k is a constant and x is the distance from the narrow end of the element, the constant k being .003, the riser draft angle varies by .1 degree per mm across the width of the element, and the riser draft angle is in the region of 10 degrees at the narrow end of the element, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. See *In re Aller*, 105 USPQ233 and *Gardner v. TEC Systems, Inc.* 220 USPQ 777.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Baumgardner et al., Freeman, and Japanese Publication 2000-233687 disclose vehicle windshields.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jason S. Morrow whose telephone number is (571) 272-6663.

The examiner can normally be reached on Monday-Friday, 8:00a.m.-4:30p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Dayoan can be reached on (571) 272-6659. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3612

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jason S. Morrow/
Primary Examiner, Art Unit 3612

February 19, 2008